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November 30, 2017

**VIA ONLINE SUBMISSION**

Ms. Amy Jankowiak  
Department of Ecology  
Water Quality Program  
3190 - 160th AVE SE  
Bellevue, WA 98008-5452  
<http://ws.ecology.commentinput.com/?id=EQHJt>

**Re: Comment that Adequate Facilities for Sanitary Removal and Treatment of Sewage from All Vessels Operating in Puget Sound are Not Reasonably Available within the Proposed NDZ  
PROPOSED RULE: Chapter 173-228 WAC**

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Dear Ms. Jankowiak:

American Cruise Lines (“ACL”) submits this letter of comment (this “Letter”) in opposition to State of Washington Department of Ecology’s (“Ecology”) proposed Rule - Chapter 173-228 WAC to establish a No Discharge Zone in certain waters in Puget Sound (the “NDZ”).

**I. BACKGROUND ON ACL**

ACL is a privately held, Connecticut, USA based, small business that operates a small fleet of American flagged small overnight passenger cruise ships. ACL specializes in small overnight passenger ship cruising on near coastal and inland waterways and rivers of the U.S. ACL’s vessels, all built after 2002, typically carry between 98 and 183 passengers and comprise, we believe, the world’s newest fleet of vessels of this size that offer overnight cruises in the USA. ACL currently offers itineraries in the Pacific Northwest, Coastal New England, the Hudson River, the Chesapeake Bay, the Atlantic Intra Coastal Waterway between Norfolk, Virginia and St. Augustine, Florida, the St. Johns River, the Historic South & Golden Isles, the Ohio and Cumberland Rivers, the Mississippi River, Southeastern Alaska, Puget Sound, and on the Columbia and Snake Rivers.

Passenger cruising with ACL is focused on a narrow market of well-educated and culturally discriminating clientele and is intentionally contrary to the experience offered by mass-market operators carrying thousands of passengers per voyage and offering extravagances such as onboard casinos and swimming pools. The hallmark of cruising with ACL is the ability of its small vessels to reach deep into smaller and shallower U.S. ports where larger cruise ships cannot go, allowing our passengers the opportunity to explore the scenic, cultural, and historical benefits of America's unique waterways, smaller towns, and attractions without the crowds and clamor of the typical mass-market cruise setting.

ACL's ships are among the smallest overnight passenger cruising vessels currently operating in the U.S., and perhaps the world. Most in the cruise industry would describe a "small" cruise ship as one which carries fewer than 1,500 overnight passengers. Our ships carry only approximately 10% of that number. Larger American flag overnight passenger cruise ships must be designed, built, and operated so as to comply with Subchapter H of Title 46 of the Coast Guard regulations but for many reasons, none have been built for several decades. By contrast, ACL's ships are designed and built to be sufficiently small so as to qualify for Subchapter K or T of Title 46, not Subchapter H. While we comply with regulations applicable to small vessels, we avoid the increased manning and construction costs associated with vessels built to the large ship requirements. By keeping our ships very small we keep costs down so that we may compete in our narrow market.

ACL is committed to the safety of its passengers and the environmental well-being of the waterways and ports in which it operates. ACL strives to comply with all local, state, and federal laws and regulations, including those that seek to protect and preserve the environment.

## **II. ACL OPERATES PASSENGER CRUISES IN PUGET SOUND**

ACL offers overnight passenger cruises, including aboard the *M/V American Spirit*, which engages in interstate commerce between Washington's Puget Sound and southeast Alaska. *American Spirit* was built in 2005, is 214.4' long, 45' wide, has an 8' draft, and is 93 gross registered tons (1955 ITC). Her U.S. Coast Guard certificate of inspection allows *American Spirit* to carry 98 passengers and up to a total of 136 persons. *American Spirit* has 53 passenger state rooms and 10 crew state rooms. *American Spirit* is equipped with one Coast Guard approved Type II Marine Sanitation Device ("MSD-II") and has blackwater<sup>1</sup> holding tank capacity of approximately 20,000 gallons.

ACL will soon offer similar service in the Puget Sound on its new vessel, *M/V American Constellation*. *American Constellation* was built in 2017, is 268' long, 56' wide, has a 9' draft, and is 99 gross registered tons (4057 ITC). Her certificate of inspection allows *American Constellation* to carry 173 passengers and up to a total of 227 persons. *American Constellation* has 89 passenger state rooms and 26 crew state rooms. *American Constellation* is equipped with

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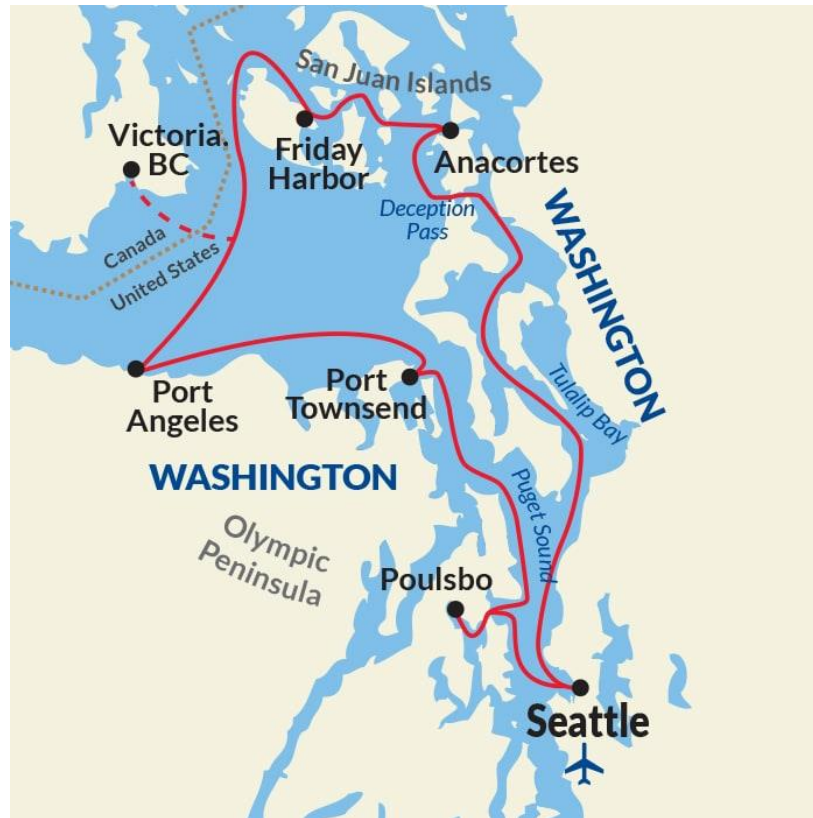
<sup>1</sup> "Blackwater" refers to sewage and other water onboard a vessel that is mixed with sewage. "Graywater" refers to water from showers, sinks, etc.

an AWWTS type sewage treatment system (*see* Section IV below) and has mixed blackwater/graywater holding tank capacity of approximately 50,000 gallons.

**A. ACL Serves the State of Washington With Popular Week-Long Cruises**

*American Spirit* offers seven day cruises in Puget Sound during approximately 30 weeks each year. Her typical itinerary in Puget Sound begins and ends at Shilshole Bay Marina in Seattle. Passengers embark on Saturday morning between 9AM and 12PM (noon) and after a 1:30PM safety briefing the ship departs for Anacortes. *American Spirit* arrives in Anacortes on Saturday at 8PM and departs Anacortes for Friday Harbor at 5:30PM on Sunday. She arrives at Friday Harbor at 7:30PM on Sunday evening and departs at 9AM on Tuesday morning for a sightseeing tour of the northern San Juan Islands and Haro Strait on her transit to Port Angeles. *American Spirit* arrives in Port Angeles at 2PM on Tuesday and departs between 6 and 7AM on Thursday (depending on tides and currents) for Port Townsend. Arrival in Port Townsend is at 10AM on Thursday and departure is at 4AM Friday for a sunrise cruise to the Poulsbo anchorage. *American Spirit* arrives in Poulsbo at 8AM Friday and departs at noon Friday for the return trip to Seattle. Arrival in Seattle is at 2PM on Friday and passengers disembark on Saturday morning. (See chart and map below.) This schedule results in nearly 150 port calls in Puget Sound by *American Spirit* each year.

<b>M/V AMERICAN SPIRIT ITINERARY</b>		
<b>PORT</b>	<b>DAY</b>	<b>ARRIVAL/DEPARTURE TIME</b>
Seattle	Saturday	Departure 1:30PM
Anacortes		Arrival 8PM
Friday Harbor	Sunday	Departure 5:30PM
		Arrival 7:30PM
	Monday	
Port Angeles	Tuesday	Departure 9AM
	Wednesday	Arrival 2PM
Port Townsend	Thursday	Departure 6-7AM
	Friday	Arrival 10AM
Poulsbo (anchorage)		Departure 4AM
		Arrival 8AM
Seattle	Friday	Departure 12PM (noon)
		Arrival 2PM



*American Spirit* has been sailing this schedule during her seasons in Puget Sound since 2012. During that time, ACL has carried an average of 1,545 passengers annually on cruises in Puget Sound for a total of approximately 9,627 passengers. These passengers come to Puget Sound to vacation aboard *American Spirit* from all over the country, some from other countries. Many of *American Spirit*'s passengers are repeat cruisers and the market has come to expect that ACL offer her standard week-long schedule, with a different port of call nearly every night, exploring the scenic beauty and natural wonder of Puget Sound's waters.

As a result of ACL's operation of *American Spirit*, her passengers and crew bring substantial revenue to each port called on, including for hotel stays in Seattle, for meals, travel to and within Washington, for incidental purchases at various ports of call during on-shore excursions, and for other incidental vacation expenditures. ACL itself regularly spends significant money incidental to the operation of *American Spirit*, purchasing bunkers, stores, food, equipment, supplies, and other necessities at Puget Sound ports. Because she trades in Puget Sound, *American Spirit* typically performs annual maintenance during her off season at shipyards in Washington. Because of sales by Washington businesses to passengers and to ACL itself, and income generated by ACL in Washington, the operation by ACL of *American Spirit* in Puget Sound results in considerable tax revenues to the State of Washington.

When *American Constellation* begins passenger service in Puget Sound, she will offer a similar schedule. She will also take over cruises currently offered on *American Spirit* in southeastern Alaska. While in Alaska, *American Constellation* will operate under a Best

Management Practices Plan to comply with Alaska's strict graywater and blackwater discharge regulations and monitoring requirements. Those regulations set effluent discharge levels for both graywater and blackwater and the monitoring component of the program ensures that vessel discharges stay within the required limits. *American Constellation* will employ the same equipment and operational practices with respect to graywater and blackwater discharges whether she is operating in Alaska or Washington and, therefore, will comply with the Alaska regulations even while in Washington State waters.

As a result of *American Constellation's* additional passenger capacity and service in Puget Sound, ACL anticipates that commensurate and substantial additional economic gain and tax revenue will be generated for Washington.

**B. There are No Reasonably Available Pumpout Facilities in Puget Sound Sufficient to Meet ACL's Needs**

*American Spirit*

Based on prior experience operating *American Spirit*, ACL estimates that she generates a minimum of 12,000 gallons of blackwater per week, although higher rates are frequently observed. The two methods to dispose of this blackwater during a cruise are either to discharge blackwater after treatment<sup>2</sup> to within EPA/U.S. Coast Guard standards using *American Spirit's* MSD-II, or to discharge blackwater to shore-based facilities. Discharging to shore-based facilities would be an option only if adequate pumpout facilities were reasonably available at the docks *American Spirit* calls on, but in fact, no such facilities are reasonably available. *American Spirit's* blackwater holding tank capacity of 20,000 gallons is clearly inadequate to hold the amount of blackwater generated during her season in Puget Sound - a total of over 250,000 gallons. In order for *American Spirit* to comply with the proposed NDZ, there would have to be reasonably available pumpout facilities at Shilshole Bay Marina in Seattle and where *American Spirit* docks in Port Angeles. As explained in detail below, because of logistical/operational and cost considerations, facilities are not reasonably available in Seattle. Facilities in Port Angeles alone are not sufficient to allow *American Spirit* to maintain an adequate safety margin of holding tank capacity.

As a practical matter, in order to keep up with the amount of blackwater generated on a daily basis and because of her cruise itinerary, *American Spirit* can only hold blackwater for approximately two days before it must be discharged. This timetable is a result of operational considerations including: (1) ACL's policy to maintain the level of blackwater in holding tanks on its vessels to provide a safety factor for unanticipated surges in blackwater generation - on the *American Spirit* that level is half of total capacity, or 10,000 gallons; (2) ACL's commitment to transit between ports during daylight hours to the extent possible in keeping with passengers' demands and market custom; (3) logistical limitations due to *American Spirit's* cruise itinerary; and (4) operational limitations of the docks *American Spirit* calls on.

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<sup>2</sup> In compliance with Alaska's graywater and blackwater regulatory scheme, *American Spirit* only discharges treated blackwater while underway at or over six knots and more than one nautical mile offshore.

There are no reasonably available pumpout options at any of *American Spirit's* ports of call. Specifically, the docks *American Spirit* calls on in Anacortes, Friday Harbor, and Port Townsend are wooden docks that will not support the weight of a pumpout truck. Barges offering pumpout services have indicated that it would take approximately 15 hours for *American Spirit* to discharge the needed amounts of blackwater and, for that reason, the barges are not interested in doing business with ACL.

This leaves the ports of Seattle and Port Angeles as the only potential ports where *American Spirit* could theoretically pumpout. Based on the average capacities of pumpout trucks, it would take at least two pumpout trucks in both the ports of Seattle and Port Angeles in order to discharge the needed amounts of blackwater and maintain an appropriate safety margin of holding tank capacity. It is estimated that it would take at least four hours to discharge the needed amount of blackwater to two trucks if both of those trucks were available at the same time. If only one truck was available and that same truck had to make two trips, discharge time would increase substantially.

While in Seattle, *American Spirit's* crew already oversee provisioning for the next cruise and coordinate the disembarking and embarking passengers. Because of the nature of ACL's services and its clientele, pumpout operations would have to be conducted during non-business hours, e.g., between 10PM and 2AM. This timing would require ACL to pay a premium for those pumpout services. In addition, to accommodate and oversee the proposed discharge of blackwater, at least two additional personnel, including the captain or mate and an additional crewmember, would have to be called out so that the operation could be conducted safely. This process would unreasonably divert crew from ensuring a safe and enjoyable cruising experience for its passengers. As a result, it is neither reasonable nor practical for *American Spirit* to discharge blackwater to pumpout trucks in Seattle. In fact, there simply are not reasonably available pumpout facilities in Seattle for overnight passenger cruise ships like *American Spirit* in commercial operation.

Because discharging blackwater in Seattle is not a reasonable or practical option, the only remaining port where *American Spirit* theoretically could discharge blackwater is Port Angeles. But because that is the only such port, *American Spirit* would not be able to maintain a safe margin of capacity in her blackwater holding tank for an entire week. Even if such a margin could be maintained for an entire week, pumpout operations at Port Angeles still would have to occur late at night, costing a premium and requiring additional crew to be called out to oversee the operations. Because of considerations of safety and extraordinary cost and additional crew requirements, pumpout facilities are not reasonably available in Port Angeles to accommodate *American Spirit* or vessels like her.

#### *American Constellation*

*American Constellation's* AWWTS sewage treatment system complies with VGP requirements that went into effect in 2013, prior to her date of construction. To comply with the

VGP requirements,<sup>3</sup> *American Constellation* must treat both blackwater and graywater with the AWWTS system. As opposed to *American Spirit*, which has the ability to store blackwater separately from graywater, on *American Constellation* both blackwater and graywater are stored in the same tanks. Based on ACL's experience in operating its fleet of vessels, it is anticipated that rate of creation of blackwater and graywater on the *American Constellation* will be approximately 56,000 gallons per week.

*American Constellation* is expected to have a similar itinerary to *American Spirit* and is expected to call on the same ports and docks. *American Constellation*'s holding tank capacity for mixed blackwater and graywater is 50,000 gallons. Because of the VGP requirements applicable to *American Constellation*'s and the fact that both blackwater and graywater are both required to be treated and are stored together, *American Constellation* will need to discharge approximately 56,000 gallons of treated mixed blackwater and graywater per week. If *American Constellation* was forced to discharge to pumpout trucks, it is estimated it would take 38 hours to discharge the total 56,000 gallons generated in a week. Due to operational, logistical, and passenger expectation limitations, the *American Constellation* would have to discharge every day to keep up with blackwater and graywater production. Because pumpout trucks are not available at all of the docks *American Constellation* is anticipated to call on, discharging to mobile pumpout trucks is not feasible.

At one time, it was anticipated that a commercial vessel pumpout facility was going to be built in Bellingham harbor. According to the Bellingham Harbor Master's office, this project has now been cancelled due to inadequate funding. As set forth below, to provide the cruising experience ACL's passengers expect and demand, it would not have been reasonable or practical for *American Spirit* or *American Constellation* to divert to Bellingham for the sole purpose of pumping out. In addition to the unreasonable extra costs of such a diversion, ACL's vessel itineraries do not reasonably allow enough time for such a lengthy deviation and ACL's passengers would not accept a diversion to a port only to discharge blackwater. Moreover, length limitations would have precluded *American Spirit* and *American Constellation* from calling on the proposed facility in any event. (See Section III C below.)

Currently, to keep up with blackwater generation and maintain a safe level of blackwater in her holding tanks, *American Spirit* runs her MSD-II essentially all the time when she is underway at or over six knots, beyond one nautical mile from shore between her Puget Sound ports. ACL anticipates the same operational requirements for *American Constellation*, whose AWWTS system treats discharge to the levels similar to those of Washington State municipal waste treatment plants which discharge treated sewage directly into Puget Sound. ACL thus fully complies with EPA regulations that prescribe permitted discharges of treated blackwater by *American Spirit* and *American Constellation*. Ecology's proposal to delay applicability of the NDZ prohibitions as to commercial vessels is a recognition that adequate discharge facilities are not reasonably available for these vessels. Because no shore-based (or barge) pumpout facilities are currently reasonably available in any of the ports ACL's vessels call on, it is not reasonable to

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<sup>3</sup> Because *American Spirit* was constructed before 2013, the same VGP requirements do not apply to her.

require ACL's vessels to refrain from making any discharges of treated blackwater as permitted by EPA regulations while in Puget Sound except to shore-based (or barge) pumpout facilities.

### **III. ECOLOGY FAILS TO IDENTIFY REASONABLY AVAILABLE PUMPOUT FACILITIES**

Ecology has not demonstrated that there are adequate pumpout facilities for all vessels operating in the proposed NDZ at this time, or that such facilities will exist in the future. Ecology proposes an NDZ that includes essentially all of Puget Sound when, in fact, there are not available pumpout facilities reasonably adequate for all vessels operating in all of Puget Sound.

#### **A. Ecology's Initial Petition to EPA Fails to Identify Reasonably Available Pumpout Facilities**

In Table 9 of its final petition, Ecology identified a number of facilities that are ostensibly "Commercial Vessel Pumpouts." As a review of the Table 9 facilities shows, however, nearly all of them are limited to service of only state ferry systems. In fact, only two entries on Table 9 – McNeil Island and Port of Bellingham - even suggest there are facilities for commercial vessels other than ferries. ACL contacted each of those facilities. The company that operates the McNeil Island pier at Steilacoom confirmed that it does not offer commercial pumpout services and that the Washington Department of Corrections (which maintains a presence at that dock) also does not offer such services. The office of the Harbor Master of the Port of Bellingham also confirmed that, as of the date of these comments, no facility in Bellingham has close to sufficient capacity to accept even a small fraction of the amount of blackwater generated on *American Spirit* or *American Constellation* during their cruises.<sup>4</sup>

#### **B. Ecology's October 2016 Supplemental Submission Fails to Identify Reasonably Available Pumpout Facilities**

On October 14, 2016, Ecology submitted supplemental comments in support of its petition in response to a request from EPA for additional information concerning availability of commercial vessel pumpout facilities. The supplemental submission also fails to demonstrate reasonably available commercial pumpout facilities on Puget Sound.

##### **1. Tables 5 and 6 do not identify reasonably available facilities for small passenger vessels**

Table 5 of the October 2016 supplemental submission appears to be identical to Table 9 of Ecology's final submission and identifies no additional facilities. Table 6 of the supplemental submission identifies a number of "Mobile" pumpout facilities. These facilities all have a capacity

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<sup>4</sup> The Bellingham Harbor Master's office has confirmed that plans to construct a commercial vessel pumpout facility that primarily would have served commercial fishing vessels have now been cancelled. Even if that facility had been built and further investigation confirmed that *American Spirit* and *American Constellation* could safely approach the Bellingham dock, length restrictions would prohibit *American Spirit* and *American Constellation* from using the facility and, because of ACL's schedule, diverting to Bellingham is not practically or economically feasible.



only in the range of a maximum of several hundred gallons of blackwater. They completely lack sufficient capacity to be considered as reasonably available discharge facilities for overnight passenger cruise ships like *American Spirit* and *American Constellation* which generate thousands of gallons of blackwater during a cruise itinerary. The prices (in the range of \$20 per pumpout) for mobile pumpout facilities on Table 6 that have “unidentified” capacities make clear that those facilities also do not have sufficient capacity because it is implausible that a mobile pumpout facility would charge such a rate to accept the volume of effluent ACL’s vessels would need to discharge. The last facility on Table 6 only provides service to vessels within its marina. Table 6 of Ecology’s supplemental submission adds no additional discharge facilities reasonably available for overnight passenger cruise ships like *American Spirit* and *American Constellation* in commercial operation.

**2. Tables 7 and 8 do not identify reasonably available facilities for small passenger vessels**

*American Spirit*

Table 7 of Ecology’s supplemental submission purports to identify trucks or barges that constitute reasonably available discharge facilities for commercial vessels. The tank trucks and the barges identified by Ecology are not reasonable alternative pumpout facilities for *American Spirit* for a number of reasons, however, including: (1) fewer than half of the docks visited by *American Spirit* allow access for pumpout trucks; (2) the docks that do allow access for pumpout trucks require the pumpout operations to occur in close proximity to passengers and food deliveries and passengers who are paying for an enjoyable experience find the sight and odors of a sewage pumpout truck unacceptable; (3) the added cost of discharging blackwater to mobile pumpout trucks, estimated to be over \$97,200 per year for *American Spirit*, is unduly expensive; (4) the two barges identified in Table 7 have a capacity of only 3,000 gallons each, which is insufficient to meet the needs of *American Spirit*; (5) even if the barges had sufficient capacity to meet ACL’s vessels’ needs, it is unreasonable to expect that those two barges will be reasonably available to serve the over 600 commercial vessels identified by Ecology as operating within Puget Sound and needing regular pumpout services; (6) even if other, additional barges were reasonably available, ACL is advised by the operator of the barges that it would take 15 hours to discharge the needed amounts of blackwater for *American Spirit* and, therefore, the operator does not wish to do business with ACL; and (7) the added costs of discharging blackwater to the barges identified by Ecology is estimated to be over \$350,000 per year for the *American Spirit*. Table 8<sup>5</sup> and Appendix A in the October 2016 submission also appear to list mobile pumpout trucks, but as set forth above, mobile pumpout trucks are not a reasonable pumpout alternative for *American Spirit*. In sum, the October 2016 supplemental submission adds no additional discharge facilities reasonably available for overnight passenger cruise ships like *American Spirit* in commercial operation.

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<sup>5</sup> None of the pumpout facilities identified in Table 8 (recreational vessel facilities) are sufficient to serve commercial vessels of the size of *American Spirit* or *American Constellation* either because of capacity restrictions, draft restrictions, length restrictions, or a combination of those restrictions.

American Constellation

The same practical, operational, customer, and logistical constraints that apply to *American Spirit* as set forth in the preceding paragraph apply to *American Constellation*, but are magnified due to the substantially greater volume of effluent she will generate because she stores blackwater and graywater together in compliance with VGP requirements. Additionally, because *American Constellation* must treat and store both blackwater and graywater to comply with the 2013 VGP requirements, *American Constellation* would need to discharge substantially more effluent to comply with the NDZ as envisioned by Ecology. As a result: (A) the added cost to discharge *American Constellation* to mobile pumpout trucks is estimated to be \$366,720 per year; (B) the barges would not be able to accommodate the volume of effluent *American Constellation* is estimated to generate - it is estimated it would take 70 hours to discharge *American Constellation* to the barges; (C) and the added costs of discharging mixed blackwater and graywater to the barges is estimated to be over \$1,000,000 per year for the *American Constellation*. Due to the increased volume of effluent *American Constellation* is anticipated to generate, the pumpout trucks listed in Table 8 are not an option as set forth in the preceding paragraph.

Notably, in its Preliminary Regulatory Analysis, Ecology estimates pumpout costs for small passenger vessels are non-existent (\$0). (Ecology Prelim. Reg. Analysis §§ 3.2.3 and 3.3.) The lack of any estimate of this cost is a glaring omission, especially considering that - because of the significantly greater number of persons generating blackwater and/or graywater - small passenger vessels will incur far greater pumpout costs in comparison to tugboats, commercial fishing vessels, and other vessels for which Ecology does estimate pumpout costs.

As set forth above, because of the lack of reasonably available adequate pumpout facilities, it would not be feasible from a practical standpoint for ACL's vessels to operate in Washington State if they must discharge sewage to the facilities relied on by Ecology.

**C. A Proposed Facility in Bellingham Would Not Be a Reasonably Available Facility, Even if Built as Proposed**

Ecology has suggested that a planned facility in the port of Bellingham will make up for the absence of other reasonably available pumpout facilities for all commercial vessels in Puget Sound. Plans to build that proposed facility and a similar facility in Seattle have now both been cancelled. Even if the proposed Bellingham facility had been built, it would not be a viable pumpout option for overnight passenger cruise ships like *American Spirit* in commercial operation. To use the proposed facilities at Bellingham, *American Spirit* would have to: (1) divert to Bellingham which is nearly 20 nautical miles each way off of the closest point in her route, a round trip that would take at least six hours in planning and transit time alone; (2) depart Anacortes (the closest itinerary port to Bellingham) on Saturday night at 10PM, transit to Bellingham and return to Bellingham by 6AM so passengers could go on shore-based excursions in Anacortes; (3) conduct a pumpout in Bellingham between midnight and 4AM, which would depend on the dock and pumpout station happening to be available and operating during those times; and (3) hire an additional licensed master in order to maintain sufficient work-rest periods for its crew - Saturday is the busiest day for ACL's crew because preparations for disembarking passengers begins at

0200 and embarking oncoming passengers ends at noon, in addition, the ship is loading or offloading luggage, food, stores, and trash. The added costs of the transit to Bellingham would be tens of thousands of dollars per season in fuel costs alone and it would require ACL to hire another master mariner with appropriate credentials (at great cost) solely to facilitate pumpouts. Passengers paying for a seven-day cruise with ACL will not tolerate losing a day devoted to pumpout. More importantly, it is ACL's understanding that the maximum length the planned facility at Bellingham will not be able to accommodate *American Spirit's* 214' length. The proposed facility at Bellingham would have added no additional discharge facilities reasonably available for overnight passenger cruise ships like *American Spirit* in commercial operation.

These same logistical, operational, consumer constraints, and added costs will apply equally to *American Constellation*, and mean that the proposed Bellingham facility will not provide a reasonably available facility for *American Constellation*, which, at 268', is also longer than *American Spirit*.

#### **D. Retrofitting to Increase Holding Tank Capacity is Not Feasible**

##### **1. Direct Costs**

Even if adequate pumpout facilities were reasonably available in Puget Sound for commercial vessels, which they are not, it is not feasible from an engineering or cost standpoint to retrofit *American Spirit* and *American Constellation*. Ecology estimates the costs to retrofit small passenger vessels to comply with the proposed NDZ will be approximately \$680,000 per vessel. (Ecology Prelim. Reg. Analysis § 3.2.3; *see also*, Herrera Enviro. Consultants, Inc. June 25, 2015 Tech. Memo., Pub. No. 16-10-015 at p. 7 (estimating \$650,000).) ACL estimates that the costs would be significantly higher for its vessels.

For ACL's vessels, the ability to increase holding tank capacity is constrained by structural, stability, and operational limitations. To increase holding tank capacity, other capacity either for fuel, potable water, or passengers, would have to be reduced. The costs required to make these structural changes would be in the range of approximately \$750,000. If these types of structural changes were made, *American Spirit* and *American Constellation* would not be able to maintain the minimum U.S. Coast Guard safety thresholds for stability.

##### **2. Indirect Costs**

In addition to direct costs, the June 2015 technical memorandum prepared for Ecology by Herrera Environmental Consultants, Inc. acknowledges that it does not estimate the increased indirect costs of retrofitting to small passenger vessel cruise operators including due to lost passenger revenue, reclassification, and marketability of cruises. Ecology's Preliminary Regulatory Analysis apparently also fails to account for any indirect costs. Even if retrofitting could be achieved, the only way *American Spirit* and *American Constellation* could meet the required safety thresholds for stability and sufficiently increase holding tank capacity would be to reduce passenger capacity to the point that commercial operation of the vessel would no longer be

economically viable. This is the case before the costs associated with reclassification and reduced marketability of cruises are considered.

Additionally, the June 2015 technical memorandum prepared for Ecology by Herrera states that the majority of small passenger vessel operators spend most of their time in Alaska. This is not true for ACL. Historically ACL has operated *American Spirit* for about 21 weeks per season in Puget Sound and 8-10 weeks per season in Alaska. In the future, ACL plans to run *American Spirit* exclusively in Puget Sound and to take over *American Spirit's* historic schedule using the *American Constellation*.

It would be unreasonable for ACL to be forced to incur these substantial additional costs and reductions in revenue even if there were pumpout facilities reasonably available for commercial vessels like *American Spirit* and *American Constellation*. It would be especially unreasonable for ACL to be forced to incur these costs and loss of revenue, even over the five year phase in period proposed by Ecology, in the present circumstances when, as Ecology concedes, there is no guarantee there will be pumpout facilities reasonably available for vessels like *American Spirit* and *American Constellation*, even after that phase in period. Thus, due to the current lack of adequate discharge facilities reasonably available for all commercial vessels that operate in the proposed NDZ, Ecology should consider less stringent alternatives.

**E. Ecology has Not Addressed whether Municipal Wastewater Treatment Facilities can Accommodate Vessel Discharges**

ACL also operates vessels on the Mississippi River. It has been ACL's experience that shoreside pumpout facilities it has contacted to discharge sewage to on the Mississippi have required that ACL provide in advance a sample of the effluent proposed to be discharged before the facilities will accept discharges from ACL's vessels. It is ACL's understanding that these samples are tested to ensure that the effluent discharged from its vessels does not contain harmful bacteria or chemicals that will interfere with the microbial agents used in the municipal waste treatment facilities where the effluent will eventually be discharged by the intermediaries.

ACL is not aware that Ecology has considered any of the issues such testing would cause if the NDZ is established as currently proposed. ACL anticipates its vessels operating in Puget Sound would need to discharge a minimum of approximately 66,000 gallons of effluent a week if the NDZ goes into effect. Presumably, that effluent would eventually be discharged into a Washington State municipal wastewater treatment facility. ACL is not aware what sampling or testing will be required by either the intermediary pumpout facilities or the municipal waste treatment facilities where the effluent will eventually be discharged. If such testing is required, it would further complicate the practical, operational, and logistical obstacles set forth above.

ACL is not aware that Ecology has considered or addressed any of the constraints that will be imposed by this sampling process. To the extent that an intermediary facility or municipal facility declined to accept the effluent, ACL's entire itinerary would be interrupted until a solution could be reached. Such interruptions and delays would cause extreme and presently incalculable costs to ACL.

#### **IV. ESTABLISHING THE NDZ WILL HALT OR SLOW EXPANSION OF NEW VESSEL SERVICE IN PUGET SOUND**

Discharges incidental to the normal operation of vessels, including both graywater and blackwater, are currently regulated by the EPA pursuant to the federal Clean Water Act under the Vessel General Permit regulations (“VGP”). In implementing these regulations, EPA set national standards that determine specific levels of the elements of effluent that can be discharged from vessels. Under those regulations, untreated blackwater cannot be discharged within three nautical miles of the U.S. coast and only blackwater treated by a Coast Guard approved MSD may be discharged within that three mile limit. In order to comply with these requirements, ACL installed an MSD-II on *American Spirit* at a cost of approximately \$200,000. The proposed NDZ threatens to make that expense essentially useless.

For vessels constructed after December 19, 2013,<sup>6</sup> the VGP additionally requires that graywater be treated to discharge requirements similar to those imposed on land-based municipal waste water plants. As a result, newly constructed vessels are designed to mix graywater and blackwater to be treated by an “advanced waste water treatment system” (“AWWTS”). This equipment is much more technologically advanced than the MSD-II on *American Spirit*. The biological and chemical processes used in this equipment are similar to those applicable to land-based, municipal waste water treatment plants. In order to comply with these regulations, ACL installed an AWWTS system on the *American Constellation* at a cost of approximately \$500,000. Again, the proposed NDZ threatens to make that expense useless.

Based on its experience operating *American Spirit*, ACL estimates that the vessel generates a minimum of approximately 56,000 gallons of combined graywater and blackwater during each week-long cruise. Installing entirely separate AWWTS systems to treat graywater and blackwater would be prohibitive, both as a matter of marine engineering and from a cost perspective.

ACL currently has plans to send more new vessels to trade in Puget Sound. Without adequate pumpout facilities, however, and because of increased operating costs and logistical hurdles, the proposed NDZ will delay ACL’s Puget Sound expansion plans, if not halt them entirely. This is because, to comply with the VGP and NDZ by using pumpout facilities, any new vessel will need both a minimum of 56,000 gallons holding tank capacity and adequate pumpout facilities to which to discharge the graywater and blackwater. As set forth above, adequate facilities would have to be located on the docks in at least two of the ports at which ACL calls. Absent the reasonable availability of adequate pumpout facilities capable of accepting some 56,000 gallons of effluent, availability not now either found or proposed in Puget Sound, ACL’s new vessels designed at great expense to comply with the VGP would, as a practical matter, simply not be able to discharge to pumpout facilities in order to comply with the NDZ.

From an engineering prospective, retrofitting the *American Constellation* or the vessel currently under construction in order to increase its holding tank capacity to 56,000 gallons would

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<sup>6</sup> *American Spirit* is not required to comply with the VGP graywater discharge requirements because of her date of construction. She is, however, required to and does already comply with the VGP blackwater discharge requirements.

prevent it from meeting required minimum U.S. Coast Guard safety thresholds for stability. Alternatively, to obtain the required holding tank capacity and meet stability requirements, passenger capacity would have to be reduced to a point that would make operating it not economically viable. Such modifications would cost in excess of approximately \$600,000 and render useless the investment by ACL, in reliance on the current VGP requirements, of over \$500,000 to install state of the art AWWTS equipment that produces effluent of quality similar to that of Washington's land based municipal waste water treatment plants.

Notably, municipal, land-based wastewater treatment plants in Washington are permitted to and do discharge wastewater into Puget Sound.<sup>7</sup> Ecology has provided no reasoned basis why it is permissible for land-based wastewater plants to discharge effluent into Puget Sound while it is impermissible for all commercial vessels, even small cruise ships, to discharge effluent treated to substantially similar standards into Puget Sound. This failure is especially noteworthy when Ecology also has failed to demonstrate the reasonable availability of pumpout facilities for all of the affected vessels. In fact, the opposite conclusion was reached after a multi-agency study led by King County Wastewater Treatment Division, which found: "There is no identified benefit of channeling wastewater from cruise ships to the regional conveyance and treatment system."<sup>8</sup>

In considering the NDZ petition, Ecology should not speculate as to whether future, potential discharge facilities might be adequate, it should be required to demonstrate that adequate discharge facilities are reasonably available for all vessels as of the time the NDZ is established, at least as to commercial vessels. Ecology has acknowledged there is no guarantee that will happen. The cancellation due to insufficient funding of construction of planned facilities in the ports of Bellingham and Seattle underscores the lack of reasonable availability of adequate facilities and reinforces why Ecology should not rely on theoretical expanded future capacity. The cancellation of these projects also demonstrates that Ecology lacks adequate plans to build supposedly sufficient pumpout facilities. Where will the facilities be? How many facilities will there be? What will it cost to build them? How will such projects be funded? What will the capacity of those facilities be?

The current lack of such facilities, in conjunction with the extreme financial burdens that will be imposed on ACL to retrofit or redesign vessels or discharge to pumpout facilities, demonstrates that there are no reasonably adequate discharge facilities reasonably available to all vessels within the proposed NDZ.

#### **V. ECOLOGY'S PETITION IS OVERREACHING AND LESS STRINGENT ALTERNATIVES ARE APPROPRIATE**

As set forth above, Ecology has failed to identify reasonably available pumpout facilities that can currently accommodate all of the vessels that operate in Puget Sound. As a result, Ecology's petition is overreaching and other, less stringent alternatives are appropriate.

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<sup>7</sup> For context, the West Point sewage treatment plant outside of Seattle discharges 90 million gallons of treated wastewater per day into Puget Sound.

<sup>8</sup> King County Department of Natural Resources and Parks, Wastewater Treatment Division, Cruise Ship Wastewater Management Report, August 2007, 1.1 Summary of Findings and Conclusions 1.

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Potential alternatives include: (1) delaying implementation of the NDZ for commercial vessels until there actually are adequate pumpout facilities reasonably available for all commercial vessels that operate in Puget Sound and Ecology can demonstrate that as a fact; (2) exempting from the NDZ requirements small overnight passenger cruise vessels, i.e., ships that are permitted to carry between 1 and 249 passengers; (3) with respect to small passenger cruise ships (1-249 passengers), exempting those ships constructed before December 19, 2013 from the NDZ requirements and requiring ships constructed after December 19, 2013 to treat blackwater to the same standards as graywater is required to be treated under the VGP before it can be discharged in Puget Sound, which would result in more stringent requirements than current EPA regulations impose for discharging treated blackwater.

Respectfully submitted,



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American Cruise Lines